

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

**Air Liquide Large Industries US LP
Geismar Facility
Geismar , Ascension Parish, Louisiana
Agency Interest Number: 31513
Activity Number: PER20080001
Proposed Permit Number: 0180-00073-V2**

I. APPLICANT

Company:

Air Liquide Large Industries US LP
P. O. Box 229
Geismar, Louisiana 70734

Facility:

Geismar Facility
36597 Hwy 30
Geismar, Ascension Parish, Louisiana
UTM coordinates : 693.22 kilometers East and 3343.28 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS

Geismar Facility is an existing air separation and electric generation plant began operation in 1997. It is currently operating under Permit No. 0180-00073-V1, issued January 20, 2004 and PSD Permit No. PSD-LA-622 (M-1), issued January 20, 2004.

The facility submitted timely renewal application.

III. PROPOSED PROJECT/PERMIT INFORMATION

Proposed Permit

Permit application and Emission Inventory Questionnaire were submitted by Air Liquide Large Industries US LP on July 28, 2008, requesting a Part 70 operating permit renewal/modification.

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Permitted Air Emissions

Estimated emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM ₁₀	89.14	90.42	+1.28
SO ₂	13.34	13.28	-0.06
NO _x	387.28	388.41	+1.13
CO	448.74	450.13	+1.39
VOC	35.32	35.90	+0.58

IV REGULATORY ANALYSIS

The permit was reviewed for compliance with 40 CFR 70 and the Louisiana Air Quality Regulations, and New Source Performance Standards (NSPS) apply. Prevention of Significant Deterioration (PSD), and National Emission Standards for Hazardous Air Pollutants (NESHAP) do not apply.

Louisiana Air Quality Regulations and NSPS

The applicability of the appropriate regulations is straightforward and provided in the Facility Requirements Section of the draft permit, or Table 2 of the Air Permit Briefing Sheet. Similarly, the Monitoring, Reporting, and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions, and standards are provided in the Facility Specific Requirements Section of the draft permit, or explained in Table 2 of the Air Permit Briefing Sheet.

Prevention of Significant Deterioration/Nonattainment Review

This permit is a renewal which will include updating LAC 33:III. Chapter 51 (Air Toxics), LAC 33:III. Chapter 15 (Emission Standards for Sulfur Dioxide), and adding non-applicability of 40 CFR Part 60, Subpart KKKK (Turbine Regulations), 40 CFR 60, Subpart VV (Fugitive Regulations) to the permit. Therefore, PSD and non-attainment New Source Review do not apply.

MACT Requirements

This facility is classified as a minor source of Toxic Air Pollutants (TAP). MACT is not required.

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Air Quality Analysis

Emissions associated with the proposed facility renewal/modification were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions. The following is the Model results from last permit modification

Dispersion Model(s) Used: ISCST3

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS})
PM ₁₀	24-hour	2.87	(150)
NO ₂	Annual	0.75	(100)
CO	1-hour	114.00	(2000)
CO	8-hour	18.70	(500)

General Condition XVII Activities

None.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

This permit does not include any permit shield

VI. PERIODIC MONITORING

See Specific Requirements

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VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

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Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.